



## CONTRACTORS STATE LICENSE BOARD LICENSE EXAMINATION STUDY GUIDE



### WATER CONDITIONING (C-55)

#### Content of the Examination

The Water Conditioning (C-55) Examination is divided into four major sections:

#### 1. Water Testing and Equipment Selection (37%)

- Water analysis
- System application
- Job site evaluation

#### 2. Water Systems and Component Installation (33%)

- Piping and valves
- Equipment installation
- Drain connections
- Electrical connections
- Startup and calibration

#### 3. Troubleshooting, Maintenance, Repair, and Replacement of Water Systems and Components (21%)

- Service and maintenance
- Troubleshooting
- Repair and replace

#### 4. Safety (9%)

- Personnel safety
- Handling hazardous materials
- Environmental safety
- Tool and equipment safety

*\*Percentages are approximate\**

#### Test Site Policy

This is a closed-book examination. No reference materials may be used during the examination. All materials brought to the examination site must be left in an unmonitored area at your own risk.

#### Test Strategy

This is a multiple-choice examination with four choices per question. Examination questions are written to provide only one BEST answer. Some questions require mathematical computation. A calculator will be provided.

There is no penalty for guessing. If you are unsure about a particular question, it is better to try to answer the question than to leave the question blank.

Plenty of time is provided to answer all examination questions, so be sure to read each question and its four choices completely and carefully before selecting the BEST possible answer to the question.

## Sample Questions

Below are three typical examination questions. The correct answer is underlined.

1. What is the MAXIMUM fluoride level permitted in drinking water?
  - a. 2.0 mg/L
  - b. 4.0 mg/L
  - c. 6.0 mg/L
  - d. 8.0 mg/L
2. When installing hard copper piping underground, what types of piping should a contractor use?
  - a. K and L
  - b. K and M
  - c. L and M
  - d. M and DWV
3. What is the function of a cation exchange unit?
  - a. To oxidize iron from the water
  - b. To remove calcium and magnesium
  - c. To reduce dissolved solids
  - d. To increase pH

*\*All questions are written and reviewed by licensed contractors who are actively working in the trade\**

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## Resources

*Publisher information for reference books and code is provided below. Other sources for reference books may be found online. **California code books can be viewed online: [www.bsc.ca.gov](http://www.bsc.ca.gov)***

**2016 California Plumbing Code.** California Code of Regulations, Title 24. International Association of Plumbing and Mechanical Officials (IAPMO).  
PHONE: (800) 854-2766  
INTERNET: [www.iapmo.org](http://www.iapmo.org)

**California Health & Safety Code. Division 104 Environmental Health, Part 12 Drinking Water, Chapter 4 California Safe Drinking Water Act and Chapter 5 Water Equipment & Control.**  
VIEW ONLINE:  
<http://leginfo.legislature.ca.gov/faces/codes.xhtml>

**Guidelines for Disinfection and Sanitation of Water Treatment Equipment.** Water Quality Association Purification/Disinfection Task Force.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

**Installer's Home Study Course.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

**Ozone for Point-of-Use, Point-of-Entry, and Small Water System Water Treatment Applications.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.org](http://www.wqa.org)

**Reverse Osmosis for Point-of-Use Application.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.org](http://www.wqa.org)

**State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction & Electrical Safety Orders (Cal/OSHA). 2015.** California Code of Regulations, Title 8. Mancomm.  
PHONE: (877) 626-2666  
INTERNET: [www.mancomm.com](http://www.mancomm.com)

**Water Filtration for Point-of-Use Application. Water Processing: Residential, Commercial, Light-Industrial.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

**Water Processing.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

**Water Treatment Fundamentals.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

**WQA Glossary of Terms.** Water Quality Association.  
PHONE: (630) 505-0160  
INTERNET: [www.wqa.com](http://www.wqa.com)

*\*Publisher information is current as of 1/17\**